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## 2. Average

**Program Name: Average.java**

**Input File: average.dat**

This program will take a list of numbers and return the square root of the average of the squares of the numbers. This means you will take each number in a list, square it, and add it to a sum. Divide this sum by the number of elements in the list and take the square root of that number. Print this number to three decimal places on its own line.

### Input

The first line will contain a single integer T. T lines will follow, each with a list of floating point numbers.

### Output

Compute the answer for each line based on that list of numbers. Print that number on a separate line, rounding to three decimal places.

### Example Input File

```
4
10.12 13.423 12.2134 33.1 44.2
2.2 3.3 4.4
3.547 6.816 8.453 3.218 7.159 9.032 3.118
0.500 0.910 0.737 0.585 0.891 0.660 0.819
```

### Example Output to Screen

```
26.386
3.420
6.363
0.743
```